

When solving trigonometric equations using Solve in Main, Classpad tends to return a general solution, as shown at right.

The equation to solve is $\cos(x) = 0.5$.

There are a couple of methods to return all solutions within a given range, such as $0^\circ \leq x \leq 360^\circ$.

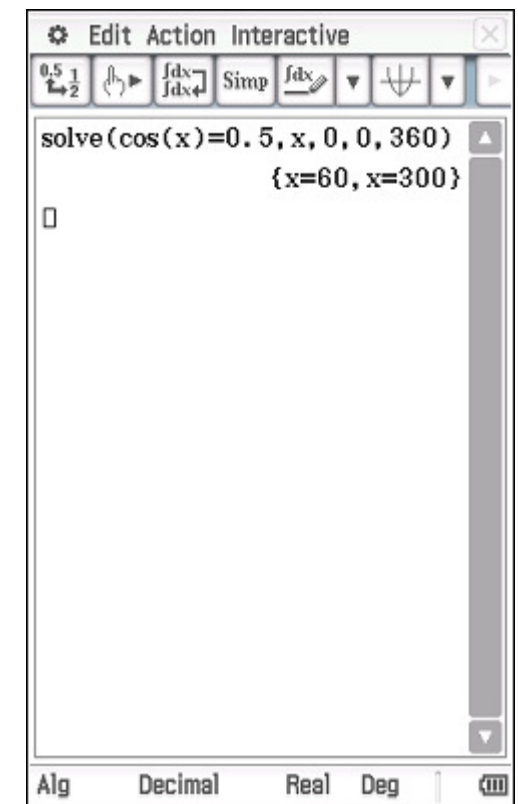
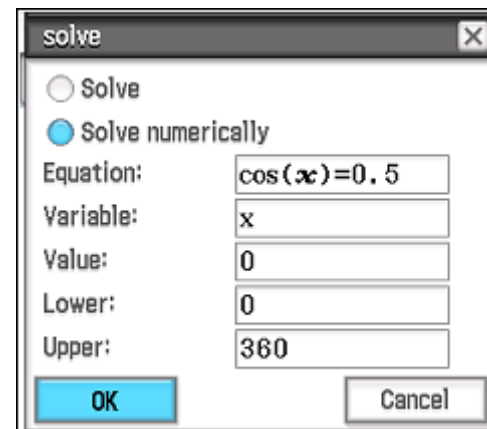
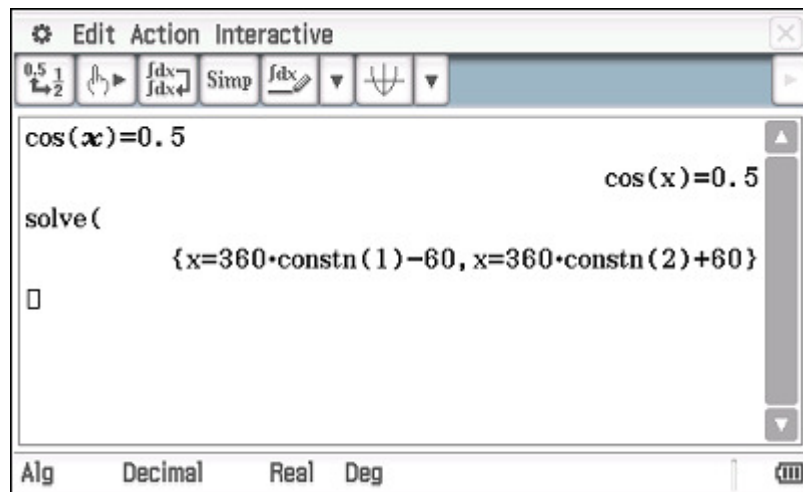
Method 1 – solve numerically.

Use **Interactive, Advanced, solve** and choose the **Solve numerically** option.

Set the **Lower** and **Upper** as required and tap **OK**.

A warning appears. Tap **OK**.

Two solutions are returned within the specified range.



Method 2 – add a restriction on x to the equation.

Tap **solve** from the keyboard and then enter the equation $\cos(x) = 0.5$.

Add the restriction after the equation and tap EXE.

Two solutions are returned within the specified range.

Note that the restriction can also be added outside the solve command.

The screenshot shows the 'Edit Action Interactive' window. The input field contains the command: `solve(cos(x)=0.5, x, 0, 0, 360)` followed by the solution set `{x=60, x=300}`. Below this, the command `solve(cos(x)=0.5 | 0 ≤ x ≤ 360)` is shown, also resulting in the solution set `{x=60, x=300}`. The bottom of the window features a keyboard interface with various mathematical symbols and functions.

The screenshot shows the 'Edit Action Interactive' window. The input field contains the command: `solve(cos(x)=0.5 | 0 ≤ x ≤ 360)` followed by the solution set `{x=60, x=300}`. Below this, the command `solve(cos(x)=0.5, x)` is shown, followed by the general solution formula `{x=360·constn(1)-60, x=360·constn(2)+60}`. Finally, the command `solve(cos(x)=0.5, x) | 0 ≤ x ≤ 360` is shown, resulting in the solution set `{x=60, x=300}`. The bottom of the window features a keyboard interface with various mathematical symbols and functions.